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**Amendment to Claims**

Please add claims 32-35.

1. (Original) A memory system for converting virtual addresses into physical addresses at the user code level and conveying the physical addresses to a peripheral device, the system comprising:

a virtual memory having memory pages, each memory page having a virtual memory address and a corresponding physical memory address in a main memory;

a microprocessor having a translation look-aside buffer which holds a subset of the virtual addresses for all the pages and their corresponding physical memory addresses in the main memory; and

a set of user-code level software instructions stored in said main memory and executable by said microprocessor for converting a virtual memory address into the corresponding physical memory address, pinning the page, and conveying the physical memory address to the peripheral device at a user code level without requiring a system call.

Claims 2-31. (Cancelled).

32. (New) The memory system of claim 1, wherein the set of user-code level software instructions directs the microprocessor to utilize the translation look-aside buffer (TLB) in order to convert the virtual memory address into its corresponding physical memory address and pin the page.

33. (New) The memory system of claim 1, wherein the set of user-level software instructions include instructions for unpinning the page, which corresponds with the physical memory address conveyed to the peripheral device, when the peripheral device has completed its operations.

34. (New) The memory system of claim 1, further comprising a page pin counter, which is incremented each additional time a page is pinned down after a first time said page is pinned down.

35. (New) The memory system of claim 1, wherein the set of user-level software instructions includes instructions for unpinning the page in memory, by:

decrementing the page pin counter each time the page is to be unpinned; and  
unpinning the page which corresponds with the physical memory address conveyed to the peripheral drive, once the page pin counter has reached zero.